



October 28, 2008

Charles L.A. Terreni  
Chief Clerk and Administrator  
South Carolina Public Service Commission  
Post Office Drawer 11649  
Columbia, South Carolina 29211

Re: Carolina Power & Light Company d/b/a Progress Energy Carolinas, Inc.  
Power Plant Performance Report  
Docket No. 2006-224-E

Dear Mr. Terreni:

Enclosed is the Power Plant Performance Report for Carolina Power & Light Company d/b/a Progress Energy Carolinas, Inc. for the month of September 2008.

Sincerely,

*Len S. Anthony (by dhs)*

Len S. Anthony  
General Counsel  
Progress Energy Carolinas, Inc.

LSA/dhs  
Enclosures  
45612

c: John Flitter (ORS)

September 2008

The following units had no off-line outages during the month of September:

Brunswick Unit 1

Harris Unit 1

Mayo Unit 1

Roxboro Unit 2

Brunswick Unit 2

Full Forced Outage

- A. Duration: The unit was taken out of service at 15:03 on August 30, and was returned to service at 3:49 on September 4, a duration of 108 hours and 46 minutes. The unit was offline for 75 hours and 49 minutes during the month of September.
- B. Cause: Power/Load Unbalance PLU Circuit Relay Actuation
- C. Explanation: After extensive investigation, the most probable cause of the Power/Load Unbalance was a short onto the Generator's Current Monitoring Circuit during post-modification testing. The short appears to have occurred while a Transmission technician was removing a test plug from the circuit.
- D. Corrective Action: Develop Transmission Department standards for test blocks. Strengthen the procedural interface agreement between the nuclear plant and the Transmission Department with increased focus on risk assessment and oversight of work activities. Train appropriate personnel on the revised procedures, interface agreement, and test block standards.

Robinson Unit 2

Full Scheduled Outage

- A. Duration: The unit was taken out of service at 0:23 on September 26, and remained offline through the end of the month. The unit was offline for 119 hours and 37 minutes during the month of September.
- B. Cause: Scheduled Refueling Outage
- C. Explanation: The unit was taken out of service for a scheduled refueling outage. In addition to refueling, required maintenance and inspections are being carried out during this outage.
- D. Corrective Action: Planed outage activities were in progress at the end of September.

Roxboro Unit 3

Full Scheduled Outage

- A. Duration: The unit was taken out of service at 23:57 on September 10, and was returned to service at 6:02 on September 15, a duration of 102 hours and 5 minutes.
- B. Cause: Inspection of Flue Gas Desulfurization System
- C. Explanation: The unit was taken offline to conduct inspections of the flue gas desulfurization system components.
- D. Corrective Action: Upon completion of the flue gas desulfurization system inspections, the unit was returned to service.

Roxboro Unit 4

Full Scheduled Outage

- A. Duration: The unit was taken out of service at 22:48 on September 19, and was returned to service at 19:00 on September 21, a duration of 44 hours and 12 minutes.
- B. Cause: Inspection of Flue Gas Desulfurization System
- C. Explanation: The unit was taken offline to conduct inspections of the flue gas desulfurization system components.
- D. Corrective Action: Upon completion of the flue gas desulfurization system inspections, the unit was returned to service.

	Month of September 2008		Twelve Month Summary		See Notes*
MDC	938 MW		938 MW		1
Period Hours	720 HOURS		8,784 HOURS		
Net Generation	689,112 MWH		7,262,921 MWH		2
Capacity Factor	102.04 %		88.15 %		
Equivalent Availability	100.00 %		86.84 %		
Output Factor	102.04 %		100.67 %		
Heat Rate	10,413 BTU/KWH		10,381 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	0	0.00	1,025,140	12.44	3
Partial Scheduled	0	0.00	59,350	0.72	4
Full Forced	0	0.00	0	0.00	5
Partial Forced	0	0.00	30,027	0.36	6
Economic Dispatch	0	0.00	31	0.00	7
Possible MWH	675,360		8,239,392		8

\* See 'Notes for Nuclear Units' filed with the January 2008 report.

\*\* Gross of Power Agency

	Month of September 2008		Twelve Month Summary		See Notes*
	-----		-----		-----
MDC	937 MW		937 MW		1
Period Hours	720 HOURS		8,784 HOURS		
Net Generation	566,245 MWH		8,045,176 MWH		2
Capacity Factor	83.93 %		97.75 %		
Equivalent Availability	85.33 %		97.29 %		
Output Factor	93.81 %		99.46 %		
Heat Rate	10,725 BTU/KWH		10,589 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
	-----	-----	-----	-----	
Full Scheduled	0	0.00	0	0.00	3
Partial Scheduled	287	0.04	26,752	0.33	4
Full Forced	71,041	10.53	142,049	1.73	5
Partial Forced	37,068	5.49	83,701	1.02	6
Economic Dispatch	0	0.00	0	0.00	7
Possible MWH	674,640		8,230,608		8

\* See 'Notes for Nuclear Units' filed with the January 2008 report.

\*\* Gross of Power Agency

	Month of September 2008		Twelve Month Summary		See Notes*
	-----		-----		-----
MDC	900 MW		900 MW		1
Period Hours	720 HOURS		8,784 HOURS		
Net Generation	656,281 MWH		7,258,963 MWH		2
Capacity Factor	101.28 %		91.82 %		
Equivalent Availability	100.00 %		90.62 %		
Output Factor	101.28 %		100.80 %		
Heat Rate	10,856 BTU/KWH		10,804 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
	-----	-----	-----	-----	
Full Scheduled	0	0.00	480,210	6.07	3
Partial Scheduled	0	0.00	8,129	0.10	4
Full Forced	0	0.00	224,235	2.84	5
Partial Forced	0	0.00	61,264	0.77	6
Economic Dispatch	0	0.00	0	0.00	7
Possible MWH	648,000		7,905,600		8

\* See 'Notes for Nuclear Units' filed with the January 2008 report.

\*\* Gross of Power Agency

	Month of September 2008		Twelve Month Summary		See Notes*
	<hr/>		<hr/>		<hr/>
MDC	710 MW		710 MW		1
Period Hours	720 HOURS		8,784 HOURS		
Net Generation	423,082 MWH		6,422,549 MWH		2
Capacity Factor	82.76 %		102.98 %		
Equivalent Availability	81.48 %		98.32 %		
Output Factor	99.25 %		104.40 %		
Heat Rate	11,029 BTU/KWH		10,713 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
	<hr/>	<hr/>	<hr/>	<hr/>	
Full Scheduled	84,928	16.61	84,928	1.36	3
Partial Scheduled	9,720	1.90	19,571	0.31	4
Full Forced	0	0.00	0	0.00	5
Partial Forced	0	0.00	213	0.00	6
Economic Dispatch	0	0.00	0	0.00	7
Possible MWH	511,200		6,236,640		8

\* See 'Notes for Nuclear Units' filed with the January 2008 report.

	Month of September 2008		Twelve Month Summary		See Notes*
	-----		-----		-----
MDC	742 MW		742 MW		1
Period Hours	720 HOURS		8,784 HOURS		
Net Generation	343,147 MWH		4,307,993 MWH		2
Capacity Factor	64.23 %		66.10 %		
Equivalent Availability	100.00 %		96.97 %		
Output Factor	64.23 %		67.26 %		
Heat Rate	10,733 BTU/KWH		10,614 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
	-----	-----	-----	-----	
Full Scheduled	0	0.00	36,976	0.57	3
Partial Scheduled	0	0.00	81,162	1.25	4
Full Forced	0	0.00	32,908	0.51	5
Partial Forced	0	0.00	46,263	0.71	6
Economic Dispatch	191,093	35.77	2,010,218	30.85	7
Possible MWH	534,240		6,515,532		8

\* See 'Notes for Fossil Units' filed with the January 2008 report.

\*\* Gross of Power Agency

	Month of September 2008		Twelve Month Summary		See Notes*
MDC	671 MW		663 MW		1
Period Hours	720 HOURS		8,784 HOURS		
Net Generation	405,391 MWH		4,950,707 MWH		2
Capacity Factor	83.91 %		85.01 %		
Equivalent Availability	99.60 %		95.80 %		
Output Factor	83.91 %		88.69 %		
Heat Rate	9,038 BTU/KWH		9,165 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	0	0.00	103,121	1.77	3
Partial Scheduled	0	0.00	12,499	0.21	4
Full Forced	0	0.00	113,276	1.95	5
Partial Forced	1,909	0.40	18,090	0.31	6
Economic Dispatch	75,820	15.69	625,682	10.74	7
Possible MWH	483,120		5,823,792		8

\* See 'Notes for Fossil Units' filed with the January 2008 report.

	Month of September 2008		Twelve Month Summary		See Notes*
	-----		-----		-----
MDC	705 MW		705 MW		1
Period Hours	720 HOURS		8,784 HOURS		
Net Generation	271,333 MWH		4,122,258 MWH		2
Capacity Factor	53.45 %		66.57 %		
Equivalent Availability	80.94 %		89.60 %		
Output Factor	62.28 %		71.37 %		
Heat Rate	11,709 BTU/KWH		11,252 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
	-----	-----	-----	-----	
Full Scheduled	71,969	14.18	415,104	6.70	3
Partial Scheduled	3,077	0.61	99,297	1.60	4
Full Forced	0	0.00	1,645	0.03	5
Partial Forced	21,703	4.28	128,116	2.07	6
Economic Dispatch	139,518	27.49	1,426,300	23.03	7
Possible MWH	507,600		6,192,720		8

\* See 'Notes for Fossil Units' filed with the January 2008 report.

	Month of September 2008		Twelve Month Summary		See Notes*
	-----		-----		-----
MDC	698 MW		698 MW		1
Period Hours	720 HOURS		8,784 HOURS		
Net Generation	278,949 MWH		3,695,231 MWH		2
Capacity Factor	55.51 %		60.27 %		
Equivalent Availability	87.81 %		83.21 %		
Output Factor	67.41 %		71.59 %		
Heat Rate	10,488 BTU/KWH		10,544 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
	-----	-----	-----	-----	
Full Scheduled	30,852	6.14	826,571	13.48	3
Partial Scheduled	13,524	2.69	117,848	1.92	4
Full Forced	0	0.00	21,813	0.36	5
Partial Forced	16,889	3.36	63,267	1.03	6
Economic Dispatch	162,347	32.30	1,404,231	22.90	7
Possible MWH	502,560		6,131,232		8

\* See 'Notes for Fossil Units' filed with the January 2008 report.

\*\* Gross of Power Agency

Plant	Unit	Current MW Rating	January 2007 - December 2007	September 2008	January 2008 - September 2008
Asheville	1	191	63.64	69.84	77.20
Asheville	2	185	73.17	50.99	63.31
Cape Fear	5	144	78.67	44.83	68.63
Cape Fear	6	172	72.38	57.03	60.21
Lee	1	74	62.15	39.12	64.95
Lee	2	77	62.47	36.85	49.83
Lee	3	248	66.38	58.46	43.07
Mayo	1	742	72.10	64.23	63.67
Robinson	1	176	74.63	68.73	66.15
Roxboro	1	369	78.01	73.67	80.48
Roxboro	2	671	80.06	83.91	81.82
Roxboro	3	705	74.37	53.45	64.56
Roxboro	4	698	62.40	55.51	69.69
Sutton	1	93	56.26	28.30	50.42
Sutton	2	102	63.19	34.46	60.35
Sutton	3	403	55.53	47.32	60.88
Weatherspoon	1	48	53.86	27.58	46.76
Weatherspoon	2	49	55.68	27.47	44.20
Weatherspoon	3	76	68.70	33.73	61.91
Fossil System Total		5,223	69.82	59.24	66.66
Brunswick	1	938	95.92	102.04	83.48
Brunswick	2	937	86.99	83.93	96.71
Harris	1	900	93.90	101.28	97.59
Robinson Nuclear	2	710	92.26	82.76	102.04
Nuclear System Total		3,485	92.25	93.05	94.46
Total System		8,708	78.79	72.77	77.78

Amended SC Fuel Rule  
Related to Nuclear Operations

There shall be a rebuttable presumption that an electrical utility made every reasonable effort to minimize cost associated with the operation of its nuclear generation system if the utility achieved a net capacity factor of  $\geq 92.5\%$  during the 12 month period under review. For the test period April 1, 2008 through September 30, 2008, actual period to date performance is summarized below:

Period to Date: April 1, 2008 to September 30, 2008

Nuclear System Capacity Factor Calculation (Based on net generation)

A.. Nuclear system actual generation for SCPSC test period	A = 14,322,579 MWH
B. Total number of hours during SCPSC test period	B = 4,392 hours
C. Nuclear system MDC during SCPSC test period (see page 2)	C = 3,485 MW
D. Reasonable nuclear system reductions (see page 2)	D = 1,151,906 MWH

A. SC Fuel Case nuclear system capacity factor:  $[(A + D) / (B + C)] * 100 = 101.1\%$

NOTE:

If Line Item E  $> 92.5\%$ , presumption of utility's minimum cost of operation.

If Line Item E  $< 92.5\%$ , utility has burden of proof of reasonable operations.

Amended SC Fuel Rule  
Nuclear System Capacity Factor Calculation  
Reasonable Nuclear System Reductions  
Period to Date: April 1, 2008 to September 30, 2008

Nuclear Unit Name and Designation	BNP Unit # 1	BNP Unit # 2	HNP Unit # 1	RNP Unit # 2	Nuclear System
Unit MDC	938 MW	937 MW	900 MW	710 MW	3,485 MW
Reasonable refueling outage time (MWH)	644,015	0	0	84,928	
Reasonable maintenance, repair, and equipment replacement outage time (MWH)	436	111,259	229,188	213	
Reasonable coast down power reductions (MWH)	0	0	0	9,720	
Reasonable power ascension power reductions (MWH)	30,893	19,898	0	0	
Prudent NRC required testing outages (MWH)	3,866	11,345	0	0	
SCPSC identified outages not directly under utility control (MWH)	0	0	0	0	
Acts of Nature reductions (MWH)	0	6,145	0	0	
Reasonable nuclear reduction due to low system load (MWH)	0	0	0	0	
Unit total excluded MWH	679,210	148,647	229,188	94,861	
Total reasonable outage time exclusions [carry to Page 1, Line D]					1,151,906